

**U.S. EPA REGION VIII
TECHNICAL ENFORCEMENT PROGRAM
RCRA CORRECTIVE ACTION ASSESSMENT REPORT**

Facility: ASARCO East Helena Plant
100 Smelter Road
East Helena, MT

Facility Contact: Jon Nickel
Environmental Manager

Telephone Number: (406) 227-4529

EPA I.D. No.: MTD006230346

Notification Status: LQG

Inspection Type: Corrective Action Assessment Inspection

Date: March 7, 2007

Time In: 8:35 a.m.

Time Out: 1:02 p.m.

Weather: Cool

**EPA
Representative:** Linda Jacobson
EPA Inspector

**State
Representative:** Iver Johnson
MDEQ Inspector

**Facility
Representatives:** Jon Nickel, Environmental Manager
Bob Miller, Hydrogeologist

Background:

This inspection was a prearranged corrective action assessment inspection. Ms. Jacobson, EPA inspector, and Mr. Johnson, Montana Department of Environmental Quality (MDEQ) inspector, arrived at the facility at 8:35 a.m., donned protective gear, and joined Mr. Nickel and Mr. Miller in the employee lunch room. Admittance to the site was gained by consent as noted on the attached Notice of Inspection (NOI) form (Attachment 1). Attached photographs were taken to document the progress of the structure demolition for installation of a source control measure at the former Speiss/Dross Plant area, storage conditions, and corrective action activities.

Pursuant to a 1998 federal RCRA Consent Decree ("CD"), EPA is the lead agency for implementation of corrective action activities at the ASARCO East Helena smelter facility. Ms. Jacobson presented an overview of the scope of the inspection. Additionally, she discussed the areas which she requested to view during the field portion of the inspection including the following: 1) PRB wall and the resistivity project; 2) Former APSD Area temporary cap; 3) temporary caps for other demolished areas; 4) location of proposed haul roads for the waste transfer to the proposed CAMU Phase II Cell; 5) remaining structures in the Speiss/Dross Plant area needing to be cleared for construction of the source control measure in 2007; 6) location of the cadmium/lead plume source area; 7) location of wells to be used for trace metal analyses during May 2007 sampling event.

A meeting among MDEQ, ASARCO, and EPA representatives had occurred on the previous day regarding design, construction, waste placement, long-term monitoring and maintenance of a second corrective action management unit (CAMU) cell for disposal of demolition debris and remediation wastes. Discussion of some of the issues from the prior day continued during the inspection, including approval of the second CAMU cell in phases to avoid extensive delay of the construction and operation of the cell during 2007.

Mr. Johnson proposed use of alternative buildings for storage of demolition debris for structures targeted for removal during 2007. One alternative proposed by Mr. Johnson was the use of the deep truck bins in the ore storage building, which could be used if ramps were constructed into the bins. A second alternative suggested was the use of the Direct Smelt Building for storage of material such as the wood from the Highline trestle.

Mr. Johnson and Mr. Nickel also clarified for Ms. Jacobson that the wastes currently in storage would be placed into the CAMU first. It is ASARCO's intention to place the 2007 demolition wastes directly into the CAMU, without any prior storage.

Ms. Jacobson asked about the leachate sump/leak detection modifications for the new CAMU cell design. Mr. Nickel first showed, then provided Ms. Jacobson, a copy of the drawings which are part of the bid package for the demolition work and CAMU Phase II Cell construction for 2007. Mr. Nickel also clarified that the underground piping located in the structures to be demolished this year would be filled in completely. Mr. Miller further clarified that the pipes were to be filled with a flowing cement-like grout.

Ms. Jacobson reviewed the Interim Cap Inspection Checklist for inspections conducted on January 9, 2007 and February 6, 2007, for the temporary caps which had been constructed over the footprints of the demolished structures to prevent creation of preferential pathways for groundwater and precipitation events.

Physical Site Inspection

A walkthrough was conducted of a portion of the plant to allow photographic documentation of the condition of the pilot-scale PRB, the location and status of the temporary caps, the structures needing to be cleared for installation of the source control measure, structures planned to be demolished in 2007, and alternative storage locations proposed by Mr. Johnson.

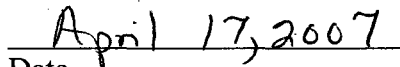
Ms. Jacobson spot checked the physical condition of seven of the site wells, checking to see if the casings were vertical, the condition of the well apron and whether the wells were locked and labeled. One of the wells, the ASARCO permeable reactive barrier (PRB) well located next to the slag pile, was not locked. Wells DH-32, DH-37, DH-27, DH-44, DH-40, and DH-33 appeared to be in good physical condition. Well DH-29 was vertical, locked, and labeled but had a crack in the well apron; however, this well is targeted to be properly abandoned this summer.

Ms. Jacobson was also shown the HDS wastewater treatment plant which is operated in a batch mode. Collected stormwater and other site generated waste waters are treated in this system, which has an MPDES discharge permit.

A photo log and photographs are attached to this report as Attachment 2.

Prepared By:


Linda Jacobson, EPA Inspector

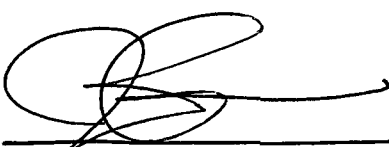
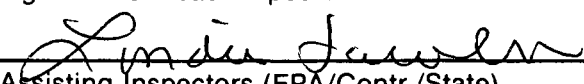

Date

U.S. ENVIRONMENTAL PROTECTION AGENCY (REGION VIII)

One Denver Place, 999 18th St., Denver, CO 80202-2413

NOTICE OF INSPECTION

PROGRAM



<input checked="" type="checkbox"/> Resource Conservation and Recovery Act (RCRA) Public Law 94-580, as amended. <input type="checkbox"/> Toxic Substances Control Act (TSCA) Public Law 94-469, as amended. <input type="checkbox"/> Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Public Law 92-516, as amended.							
Date 3/7/07	Inspector #	Daily Seq.	Hour IN: 8:35 AM OUT: 1:02 PM	CMO Fac.	Facility name ASARCO East Helena Smelter	DUNS # MTD006230346	
Fac. Func.	Invest. Type	FATES Reason	RCRA: Gen. <input checked="" type="checkbox"/> Transp. <input type="checkbox"/> TSD <input checked="" type="checkbox"/>	Street 100 Smelter Road			
Facility Representative(s) Jon Nickel				Title Envtl. Manager			
Phone # 406-(227-4529)				City East Helena	State MT	Zip 59635	
Reason for Inspection: Entry by Consent: <input checked="" type="checkbox"/> Warrant: <input type="checkbox"/> <input checked="" type="checkbox"/> To determine the extent of compliance with the above referenced law, which may require the collection of samples, documents, and/or photographs. <input type="checkbox"/> Other (Specify) _____ Violations of above referenced law are suspected from information or complaint. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>							
Samples, Documents, and/or Photos collected (describe below)						Medium	Date to Lab
1. 41 photos							
2. 1 Bid Solicitation Section VIII Drawings							
3. January 2007							
4.							
5.							
6.							
Samples requested and received by facility: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No - Photos If yes: <input checked="" type="checkbox"/> Duplicate. <input type="checkbox"/> Split. <input type="checkbox"/> Photos (To be received when processed.)							
This inspection has revealed the following probable violations of EPA laws or regulations. Reviewed Intern Conf Inspection Checklist - 1/9/07 & 2/6/07. Walked site - 1 PRB well needs lock. No other deficiencies or areas of concern noted.							
The facts established by this inspection will be reviewed by personnel in the EPA Regional Office. A final determination of your facility's compliance with EPA regulations will be made as a result of this review. The review may reveal additional violations.							
Receipt of this Notice of Inspection is acknowledged.  (Signature of facility representative)				Signature of Lead Inspector  Assisting Inspectors (EPA/Contr./State)			

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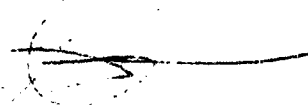
<input checked="" type="checkbox"/> Resource Conservation and Recovery Act (RCRA) Public Law 94-580, as amended. <input checked="" type="checkbox"/> Toxic Substances Control Act (TSCA) Public Law 94-469, as amended. <input checked="" type="checkbox"/> Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Public Law 92-516, as amended.						
Date 3/17/07	Inspector #	Daily Seq.	Hour IN: 8:35 AM OUT: 1:02 PM	CMO Fac.	Facility name ASARCO East Helena Smelter	DUNS # MTD006230340
Fac. Func.	Invest. Type	FATES Reason	RCRA: Gen. (4) Transp. () TSD (4)	Street 100 Smelter Road		
Facility Representative(s) Jon Nickel Env'tl. Manager				City East Helena	State MT	Zip 59635
Phone # 406-(227-4529)						
Reason for Inspection: Entry by Consent: <input checked="" type="checkbox"/> Warrant: () <input checked="" type="checkbox"/> To determine the extent of compliance with the above referenced law, which may require the collection of samples, documents, and/or photographs. <input type="checkbox"/> Other (Specify) _____ Violations of above referenced law are suspected from information or complaint. Yes () No <input checked="" type="checkbox"/>						
Samples, Documents, and/or Photos collected (describe below)					Medium	Date to Lab
1. 41 photos						
2. 1 Bid Solicitation Section VIII Drawings						
3. Inventory 2007						
4.						
5. New material						
6.						
Samples requested and received by facility: <input checked="" type="checkbox"/> Yes () No - Photos If yes: <input checked="" type="checkbox"/> Duplicate. () Split. () Photos (To be received when processed.)						
This inspection has revealed the following probable violations of EPA laws or regulations. Reviewed Intern Conf. Inspection checklist - 1/9/07 & 2/6/07. Walked site - 1 PRB well needs lock. No other deficiencies or areas of concern noted.						
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Date 3/7/91	Inspector #	Daily Seq.	Hour IN: 135A OUT: 1:00PM	CMO Fac.	Facility name	DUNS #	
Fac. Func.	Invest. Type	FATES Reason	RCRA: Gen. <input checked="" type="checkbox"/> Transp. <input type="checkbox"/> TSD <input type="checkbox"/>		Street		
Facility Representative(s) Title Jon Nickel Lead Manager					City		
Phone # 410-(277-4529)					State	Zip	
Reason for Inspection: Entry by Consent: <input checked="" type="checkbox"/> Warrant: <input type="checkbox"/> <input type="checkbox"/> To determine the extent of compliance with the above referenced law, which may require the collection of samples, documents, and/or photographs. <input type="checkbox"/> Other (Specify) _____ Violations of above referenced law are suspected from information or complaint. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>							
Samples, Documents, and/or Photos collected (describe below)						Medium	Date to Lab
1. 411							
2. 1 R.H.							
3. 207							
4.							
5.							
6.							
Samples requested and received by facility: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: <input checked="" type="checkbox"/> Duplicate. <input type="checkbox"/> Split. <input type="checkbox"/> Photos (To be received when processed.)							
This inspection has revealed the following probable violations of EPA laws or regulations. Prohibited under RCRA 11/1/82/1/1 1. 11/1/82/1/1 2. 11/1/82/1/1							
The facts established by this inspection will be reviewed by personnel in the EPA Regional Office. A final determination of your facility's compliance with EPA regulations will be made as a result of this review. The review may reveal additional violations.							
Receipt of this Notice of Inspection is acknowledged.  _____ (Signature of facility representative)				Signature of Lead Inspector _____ Assisting Inspectors (EPA/Contr./State) _____ _____			

ATTACHMENT 2

PHOTO LOG AND PHOTOS

ASARCO EAST HELENA SMELTER

MARCH 7, 2007

ATTACHMENT 2

PHOTO LOG

PHOTO NUMBER	DESCRIPTION	DATE
Roll 1 1	Pilot PRB Setup	March 7, 2007
2	INL Resistivity Project	March 7, 2007
3	Temporary Cover of Dross Plant and Speiss Granulating Area	March 7, 2007
4	Blast Furnace Building	March 7, 2007
5	Dross Plant Baghouse Base	March 7, 2007
6	Blast Furnace Building	March 7, 2007
7	Dross Baghouse & Duct Support	March 7, 2007
8	Dross Plant Baghouse	March 7, 2007
9	Dross Plant Baghouse Stack	March 7, 2007
10	Asbestos Storage in Direct Smelt Building	March 7, 2007
11	Waste Storage in Direct Smelt Building	March 7, 2007
12	Condition of Direct Smelt Building: Note Holes in Roof	March 7, 2007
13	Temporary Cap at Former APSD	March 7, 2007
14	Temporary Cap at Former APSD	March 7, 2007
15	Temporary Cap at Former APSD	March 7, 2007
16	Well DH-27	March 7, 2007
17	Well DH-39	March 7, 2007
18	Asbestos on Flue	March 7, 2007
19	Walls of Flue	March 7, 2007
20	Asbestos on Flue	March 7, 2007
21	Flue	March 7, 2007
22	Transition to Monier Flue	March 7, 2007
23	Acid Plant Piping	March 7, 2007
24	Acid Plant & Piping	March 7, 2007
25	Acid Plant Brick Stack	March 7, 2007
26	Baghouse Building	March 7, 2007
27	Baghouse	March 7, 2007
Roll 2 1	Sinter Plant Temporary Cap	March 7, 2007
2	Sinter Plant Temporary Cap	March 7, 2007
3	Sinter Plant Temporary Cap	March 7, 2007
4	Highline Trestle	March 7, 2007
5	Baghouse Dust Collection System	March 7, 2007
6	Baghouse Stack	March 7, 2007
7	420' Stack & Baghouse in Background	March 7, 2007
8	Wastewater Treatment System	March 7, 2007
9	Wastewater Treatment System	March 7, 2007
10	Remaining ASARCO Structures	March 7, 2007
11	Dross Baghouse with Stacks in Background	March 7, 2007
12	Administration Building with Temporary Cap in Foreground	March 7, 2007



Roll 1, Photo 1; Facility: ASARCO East Helena Smelter; Subject: PRB Pilot-Scale Well Set-Up; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 2; Facility: ASARCO East Helena Smelter; Subject: INL Resistivity Testing Cables; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 3; Facility: ASARCO East Helena Smelter; Subject: Temporary Cover of Dross Plant/Speiss Granulating Area; Photographer: Linda Jacobson; Date: March 7, 2006



Roll 1, Photo 4; Facility: ASARCO East Helena Smelter; Subject: Blast Furnace Building; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 5; Facility: ASARCO East Helena Smelter; Subject: Dross Plant Baghouse Base;
Photographer: Linda Jacobson; Date: March 7, 2007



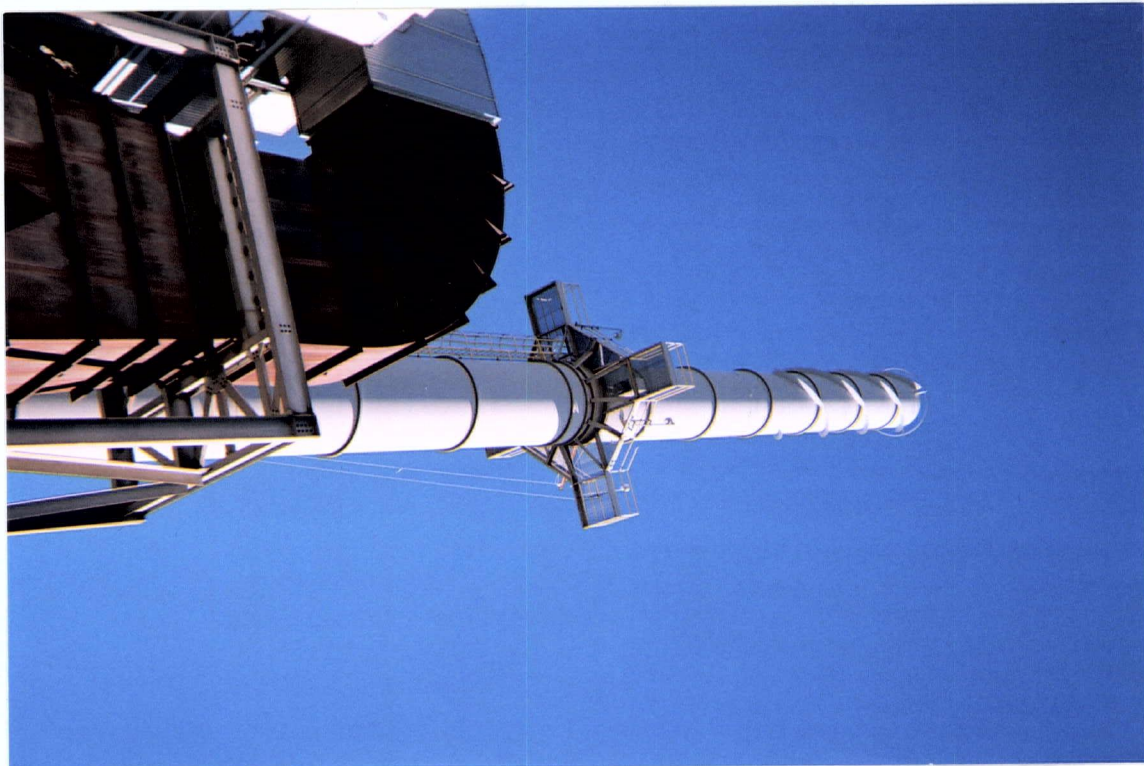
Roll 1, Photo 6; Facility: ASARCO East Helena Smelter; Subject: Blast Furnace Building;
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 7; Facility: ASARCO East Helena Smelter; Subject: Dross Baghouse & Duct Support; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 8; Facility: ASARCO East Helena Smelter; Subject: Dross Plant Baghouse; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 9; Facility: ASARCO East Helena Smelter; Subject: Dross Plant Baghouse Stack; Photographer: Linda Jacobson; Date: March 7, 2007



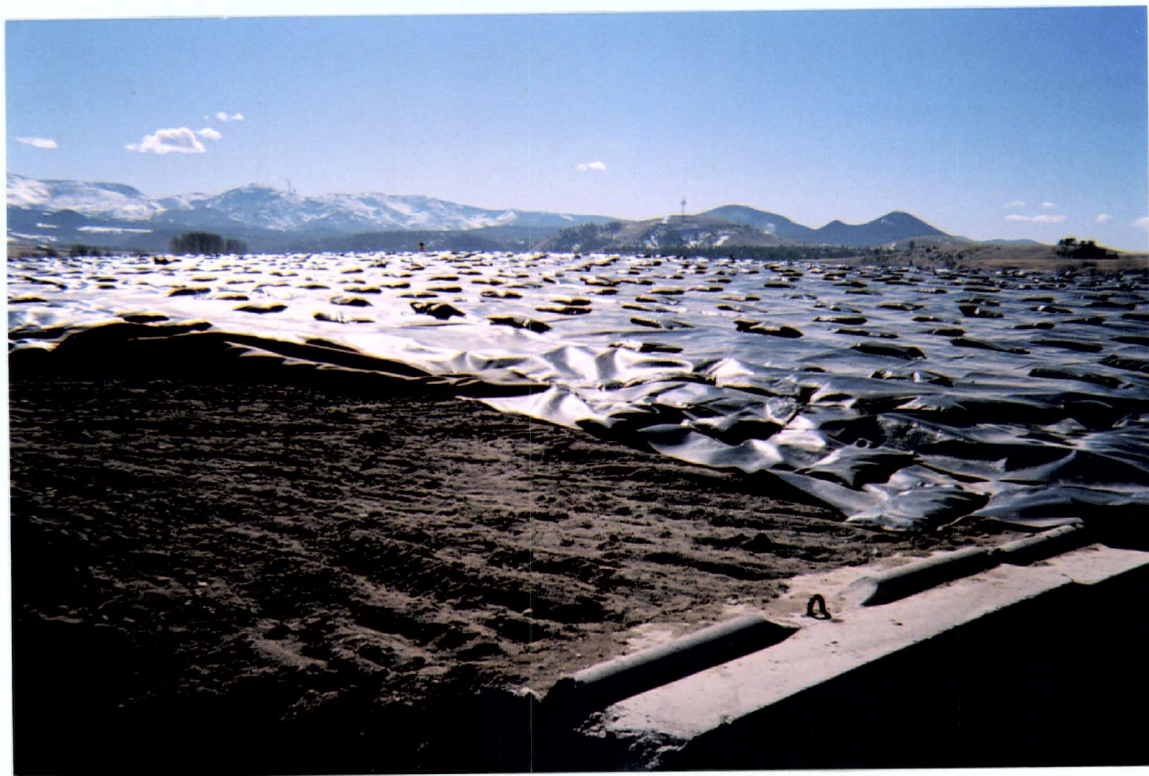
Roll 1, Photo 10; Facility: ASARCO East Helena Smelter; Subject: Asbestos Storage in Direct Smelt Building; Photographer: Linda Jacobson; Date: March 7, 2007



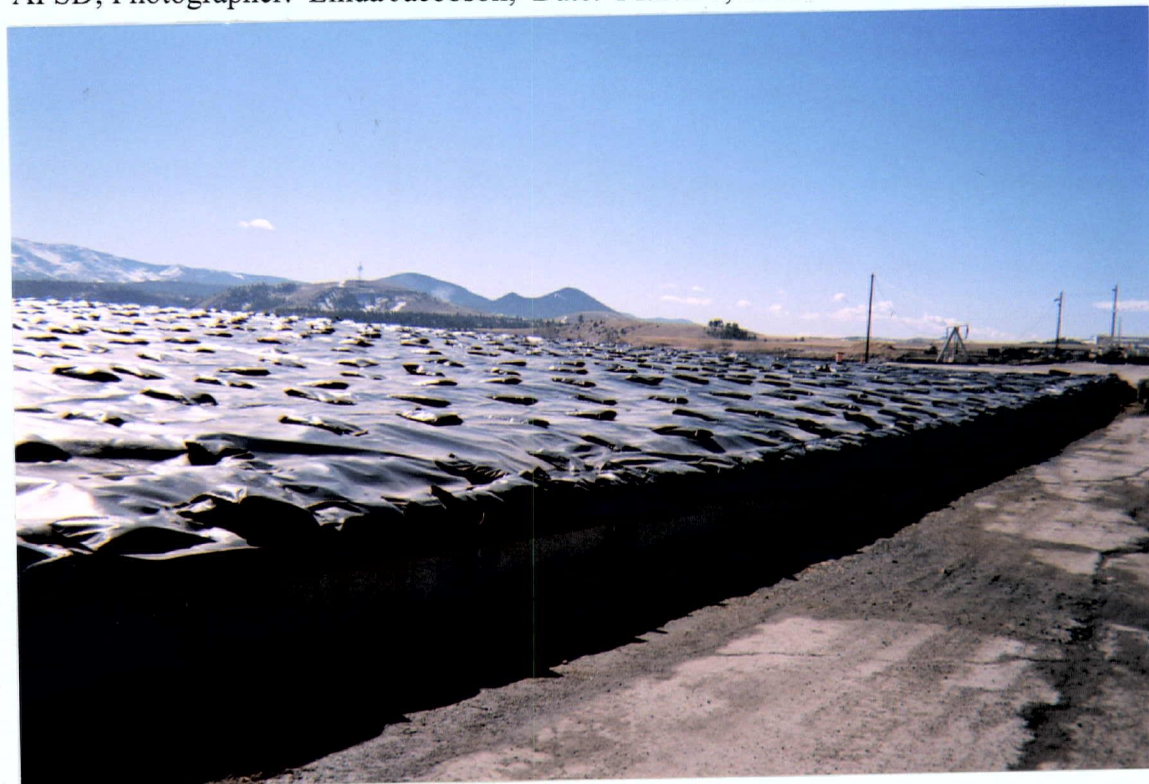
Roll 1, Photo 11; Facility: ASARCO East Helena Smelter; Subject: Waste Storage in Direct Smelt Building; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 12; Facility: ASARCO East Helena Smelter; Subject: Condition of Direct Smelt Building Roof as Noted by Light Circles from Holes; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 13; Facility: ASARCO East Helena Smelter; Subject: Temporary Cap at Former APSD; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 14; Facility: ASARCO East Helena Smelter; Subject: Temporary Cap at Former APSD; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 15; Facility: ASARCO East Helena Smelter; Subject: Temporary Cap at Former APSD; Photographer: Linda Jacobson; Date: March 7, 2007



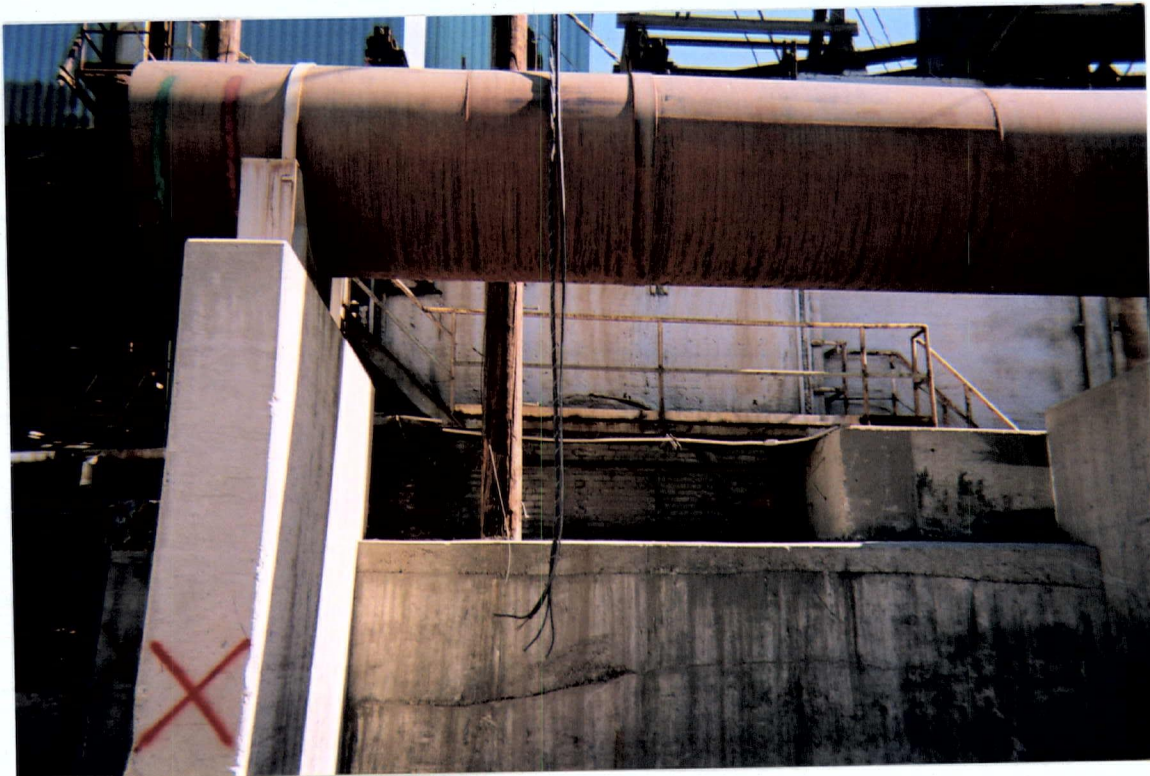
Roll 1, Photo 16; Facility: ASARCO East Helena Smelter; Subject: Well DH-27
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 17; Facility: ASARCO East Helena Smelter; Subject: Well DH-39;
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 18: Facility: ASARCO East Helena Smelter; Subject: Asbestos on Flue;
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 19; Facility: ASARCO East Helena Smelter; Subject: Walls of Flue;
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 20; Facility: ASARCO East Helena Smelter; Subject: Asbestos on Flue;
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 21; Facility: ASARCO East Helena Smelter; Subject: Flue; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 22; Facility: ASARCO East Helena Smelter; Subject: Transition to Monier Flue; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 23; Facility: ASARCO East Helena Smelter; Subject: Acid Plant & Piping;
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 24; Facility: ASARCO East Helena Smelter; Subject: Acid Plant & Piping;
Photographer: Linda Jacobson; Date: March 7, 2007



Roll 1, Photo 25; Facility: ASARCO East Helena Smelter; Subject: Acid Plant Brick Stack; Photographer: Linda Jacobson; Date: March 7, 2007



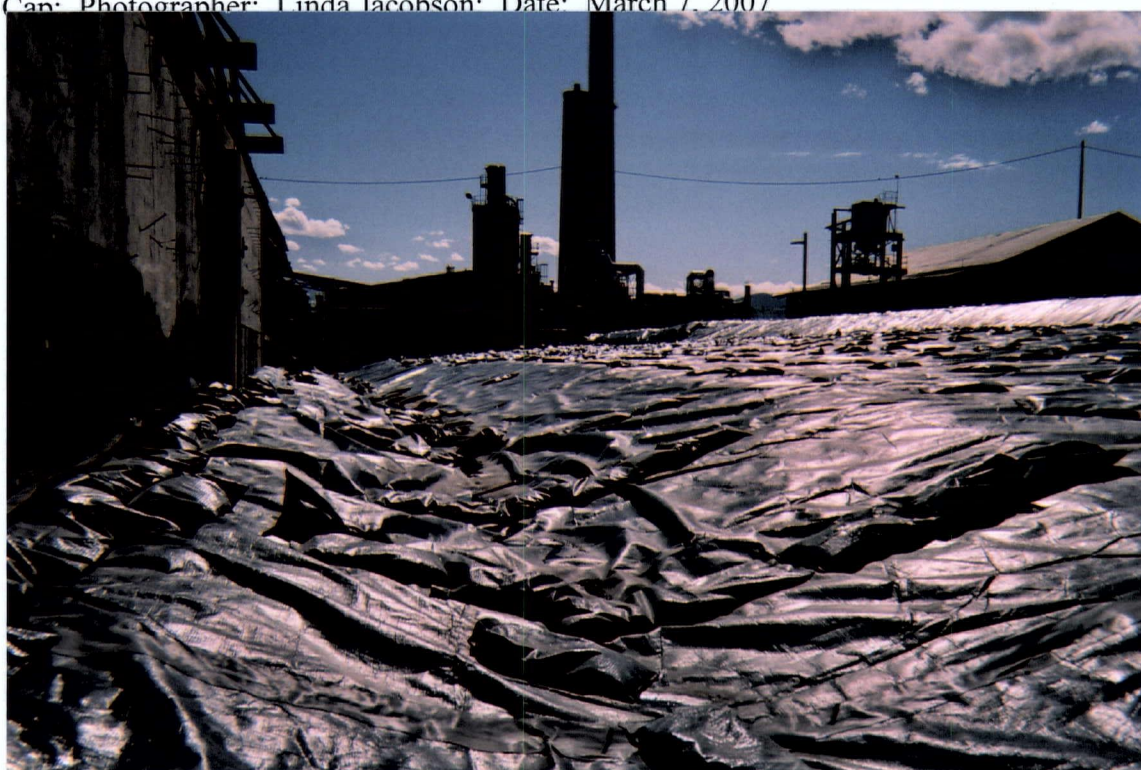
Roll 1, Photo 26; Facility: ASARCO East Helena Smelter; Subject: Baghouse Building; Photographer: Linda Jacobson; Date: March 7, 2007



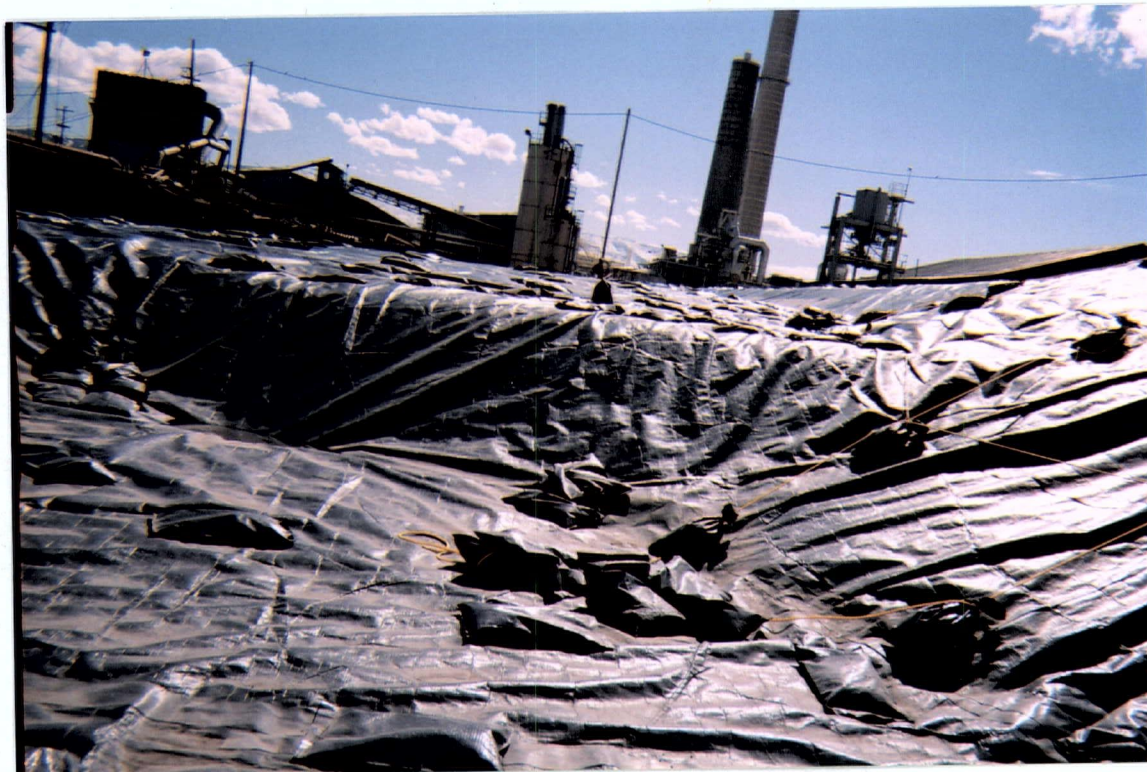
Roll 1, Photo 27; Facility: ASARCO East Helena Smelter; Subject: Baghouse; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 1; Facility: ASARCO East Helena Smelter; Subject: Sinter Plant Temporary Cap; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 2; Facility: ASARCO East Helena Smelter; Subject: Sinter Plant Temporary Cap; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 3; Facility: ASARCO East Helena Smelter; Subject: Sinter Plant Temporary Cap; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 4; Facility: ASARCO East Helena Smelter; Subject: Highline Trestle; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 5; Facility: ASARCO East Helena Smelter; Subject: Baghouse Dust Collection System; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 6; Facility: ASARCO East Helena Smelter; Subject: Baghouse Stack; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 7; Facility: ASARCO East Helena Smelter; Subject: 420' Stack & Baghouse in Background; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 8; Facility: ASARCO East Helena Smelter; Subject: Wastewater Treatment System; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 9; Facility: ASARCO East Helena Smelter; Subject: Wastewater Treatment System; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 10; Facility: ASARCO East Helena Smelter; Subject: Remaining ASARCO Structures; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 11; Facility: ASARCO East Helena Smelter; Subject: Dross Baghouse with Stacks in Background; Photographer: Linda Jacobson; Date: March 7, 2007



Roll 2, Photo 12; Facility: ASARCO East Helena Smelter; Subject: Administration Building with Temporary Cap in Foreground; Photographer: Linda Jacobson; Date: March 7, 2007